

March 11th, 2022

Dynabook Laptop Components Classified as Requiring Selective Treatment

Dynabook would like to communicate the method of identifying and removing components contained in Dynabook notebook products, including but not limited to the **dynabook E10S / Satellite Pro E10-S** model, that requires selective treatment based on the European WEEE Directive, Directive 2012/19/EU of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE).

All of the instructions provided within this letter can be reviewed in greater detail within the **dynabook E10S / Satellite Pro E10-S** Series Maintenance Manual.

Tools Required

In order to remove internal components of the **dynabook E10S / Satellite Pro E10-S** some tools from the list below may be required located in **Chapter 4 Replacement Procedures** of the **Dynabook Maintenance Manual**

For your safety and the safety of the people around you, it is important that you use Electrostatic Discharge (ESD) equipment. Correctly utilizing of the equipment increases the percentage of successful repairs and saves on the cost of damaged or destroyed parts. The following equipment is required for disassembly and assembly.

- One Philips screwdriver with type 0 bit (for S-THIN HEAD screws)
- One Philips screwdriver with type 1 bit (for screws other than above)
- One flat-blade screwdriver (for removing the CPU)
- Tweezers (for lifting screws)
- ESD mats (lay on work table or floor)
- An ESD wrist strap and heel grounder
- Anti-static carpet or flooring
- Air-ionizers in highly static sensitive areas
- Antenna coaxial cable disconnecter
- Special syringe (for applying grease)

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1. Removing the Lithium Ion Battery (Main Battery, RTC battery)

Please refer to the information below for instructions regarding the identification and removal of the lithium ion battery. Further maintenance instructions can be found in section 4.3 of the **dynabook E10S / Satellite Pro E10-S Maintenance Manual**. Some tools are required in order to remove this component. Once removed, these components should be recycled as per local requirements.

To remove the battery, the base assembly must be removed first:

Removing Base Enclosure

Remove Base Enclosure according to the following procedures and Figure 4-1.

1. Remove the 11 black screws fixing the Base Enclosure CM2.0X5.5Xφ4.0X0.5
2. Remove Base Enclosure

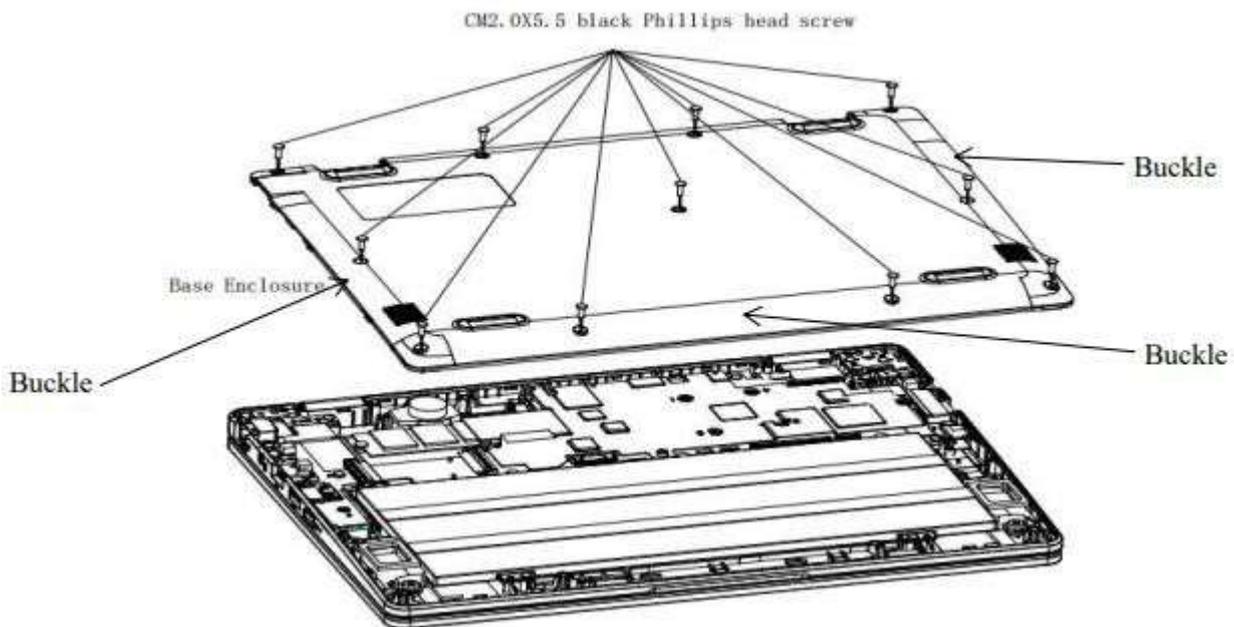


Figure 4-1 Removing Base Enclosure

Removing Battery Pack

Remove battery pack according to the following procedures and Figure 4-2.

CAUTION: When handling the battery packs, use care not to short circuit the terminals. Do not drop, hit, twist, or bend the battery packs. Do not scratch or break up their casing.

1. Disconnect the battery interface (J2) cable from connector.
2. Remove four CM2.0X4.0Xφ4.0X0.5 silvery Phillips head screws securing Battery.
3. Remove Battery pack.

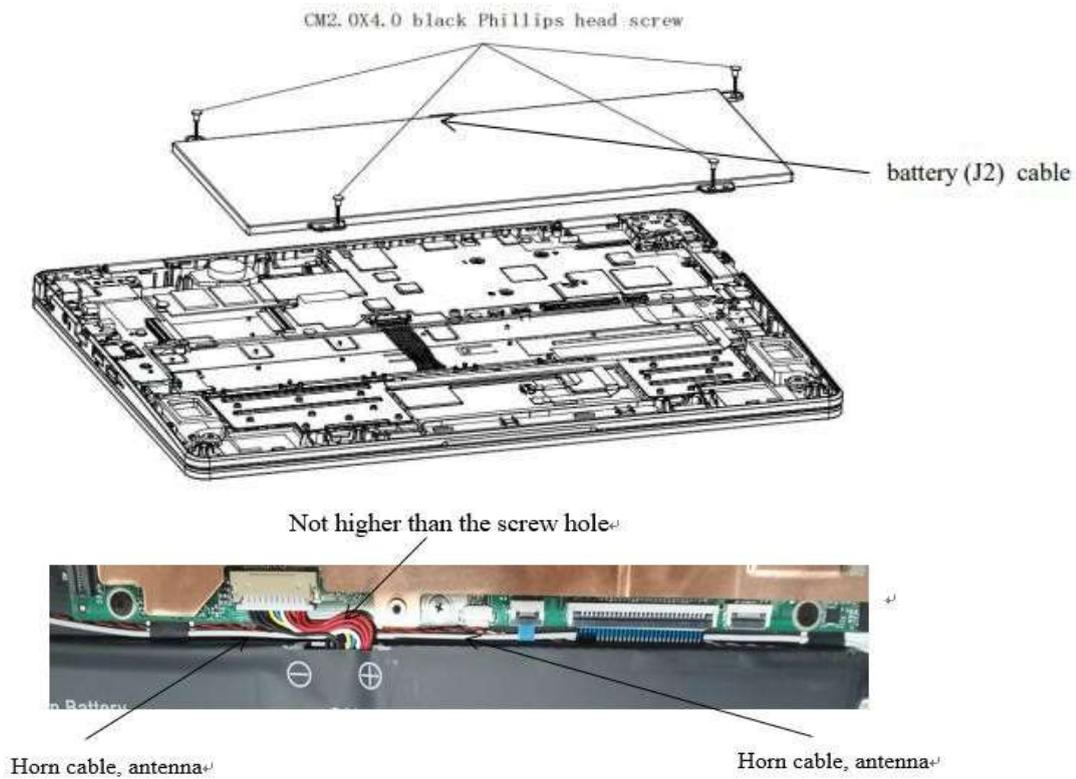


Figure 4-2 Removing battery pack

CAUTION: The battery packs contain a lithium ion battery, which can explode due to improper replacement, use, handling, or disposal. Always dispose of the battery packs as required by local ordinances or regulations. Use only replacement batteries recommended by Dynabook.

NOTE: Visually check the battery's terminals. If they are dirty, clean them with a dry cloth.

NOTE: Dispose of the used battery packs as required by local ordinances or regulations.

Removing RTC Battery& DC-IN

Remove RTC Battery & DC-IN according to the following procedures and Figures 4-10

1. Remove the RTC battery interface(J20)
2. Remove the RTC Battery from C cover
3. Remove DC-IN cable
4. Remove DC-IN

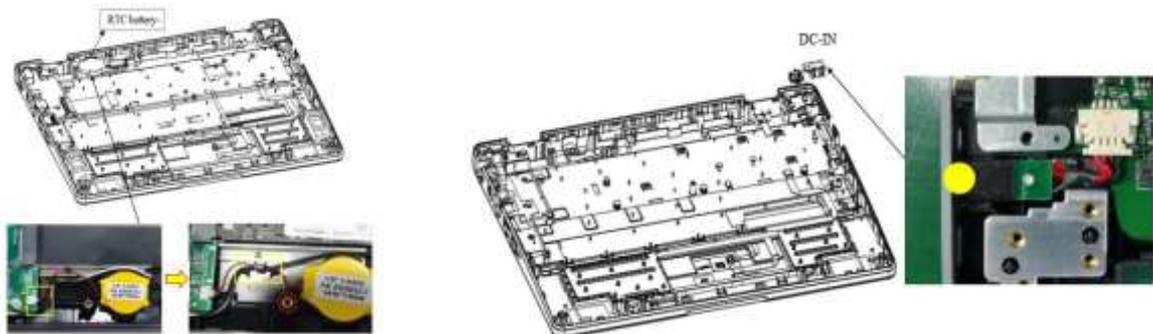


Figure 4-10 Removing RTC Battery

2. Removing the SSD

Please refer to the information below for the removal of the SSD.
One Philips screwdriver with type 1 bit will be required to remove the screws indicated in the locations below. Once removed, these components should be recycled as per local requirements.

Removing SSD(only SSD model)

Remove SSD according to the following procedures and Figures 4-3

CAUTION: Do not touch the connectors on SSD and in the computer with your bare hands. SSD can fail if they are contaminated with sweat, natural oils, etc. from your hands.

1. Remove one CM2.0X2.0Xφ5.0X0.5 black Phillips head screw securing the SSD.
2. Pull the SSD out of the system board (PCIE SSD)

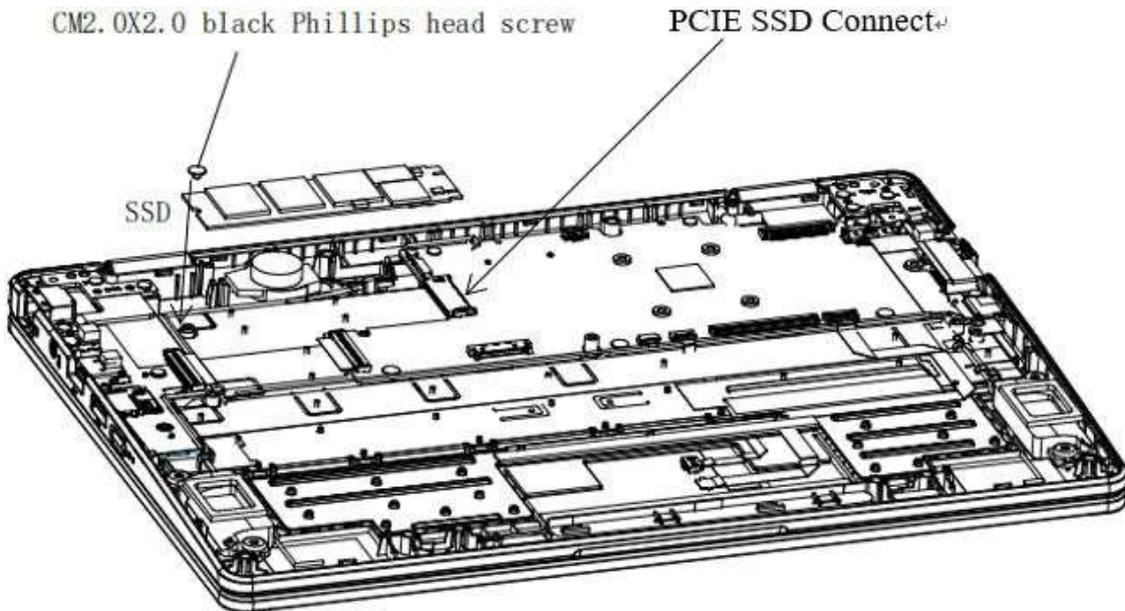


Figure 4-3 Removing SSD

3. Removing the LCD and Printed Circuit / Wiring Boards

Beside the LCD and the main PCB, there are further **small PCBs and components** which are in the scope of the WEEE Directive. The removal of these components is described in detail in the **chapter 4** of the associated maintenance manual.

Replacement Procedures

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4.2 Base Enclosure

Removing Base Enclosure

Remove Base Enclosure according to the following procedures and Figure 4-1.

1. Remove the 11 black screws fixing the Base Enclosure CM2.0X5.5Xφ4.0X0.5
2. Remove Base Enclosure

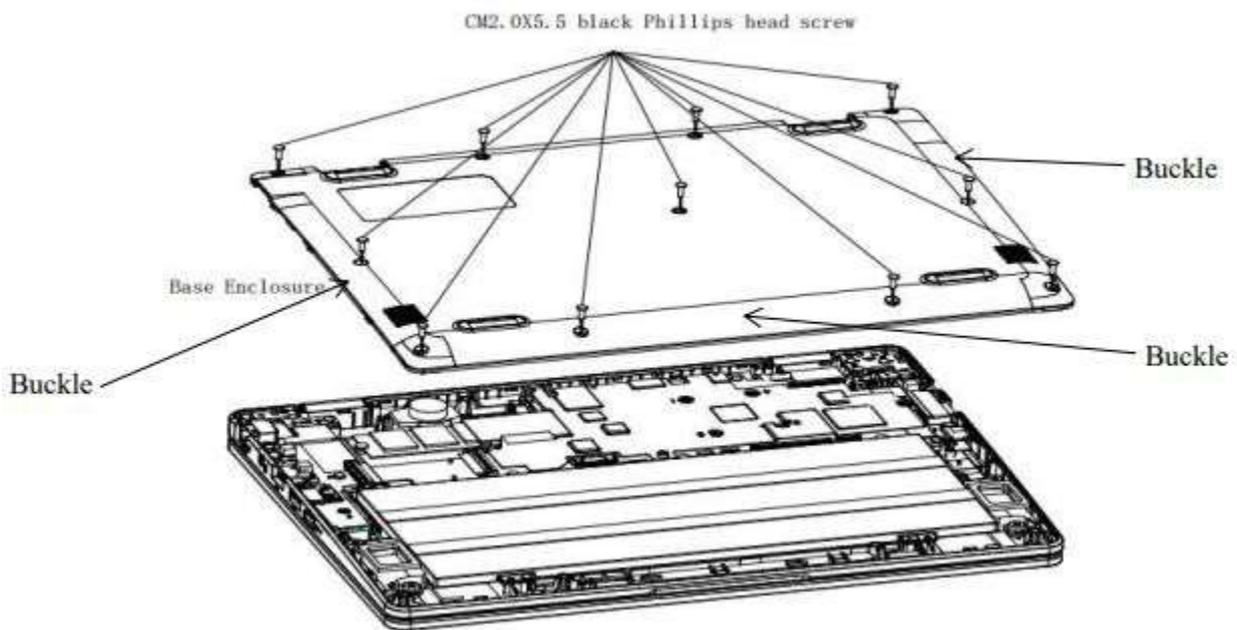


Figure 4-1 Removing Base Enclosure

Install Base Enclosure

Install Base Enclosure according to the following procedures and Figure 4-1.

1. Check whether the connecting line is blocked above the screw hole
2. Place Base Enclosure in correct position.
3. Lock all hooks
4. Install the 11 black screws fixing the Base Enclosure CM2.0X5.5Xφ4.0X0.5.

4.3 Battery Pack

Removing Battery Pack

Remove battery pack according to the following procedures and Figure 4-2.

CAUTION: When handling the battery packs, use care not to short circuit the terminals. Do not drop, hit, twist, or bend the battery packs. Do not scratch or break up their casing.

1. Disconnect the battery interface (J2) cable from connector.
2. Remove four CM2.0X4.0Xφ4.0X0.5 silvery Phillips head screws securing Battery.
3. Remove Battery pack.

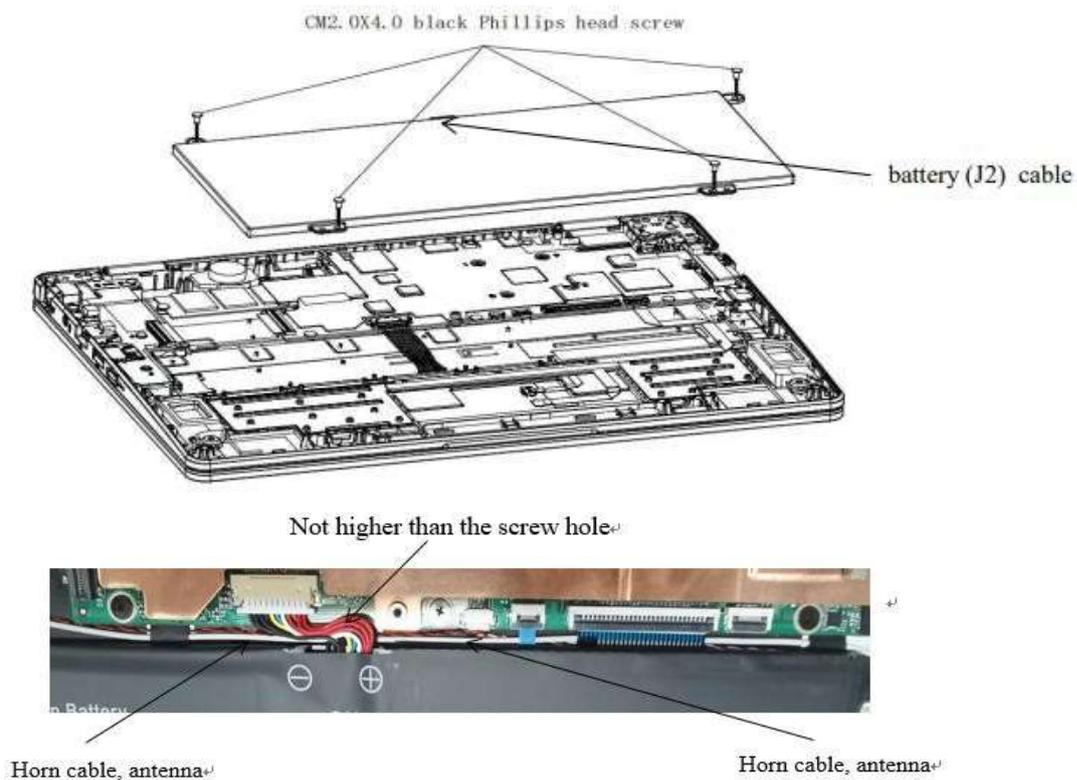


Figure 4-2 Removing battery pack

CAUTION: *The battery packs contain a lithium ion battery, which can explode due to improper replacement, use, handling, or disposal. Always dispose of the battery packs as required by local ordinances or regulations. Use only replacement batteries recommended by Dynabook.*

NOTE: *Visually check the battery's terminals. If they are dirty, clean them with a dry cloth.*

NOTE: *Dispose of the used battery packs as required by local ordinances or regulations.*

Install Battery Pack

Install battery pack according to the following procedures and Figure 4-2.

1. Check whether the cable is pressed by the battery.
2. Place Battery Pack in correct position.
3. Secure Battery with four CM2.0X4.0Xφ4.0X0.5 silvery Phillips head screws.
4. Connect the battery interface (J2) cable to battery connector.
5. Battery interface cable Not higher than the screw hole

4.4 SSD

Removing SSD(only SSD model)

Remove SSD according to the following procedures and Figures 4-3

CAUTION: Do not touch the connectors on SSD and in the computer with your bare hands. SSD can fail if they are contaminated with sweat, natural oils, etc. from your hands.

1. Remove one CM2.0X2.0Xφ5.0X0.5 black Phillips head screw securing the SSD.
2. Pull the SSD out of the system board (PCIE SSD)

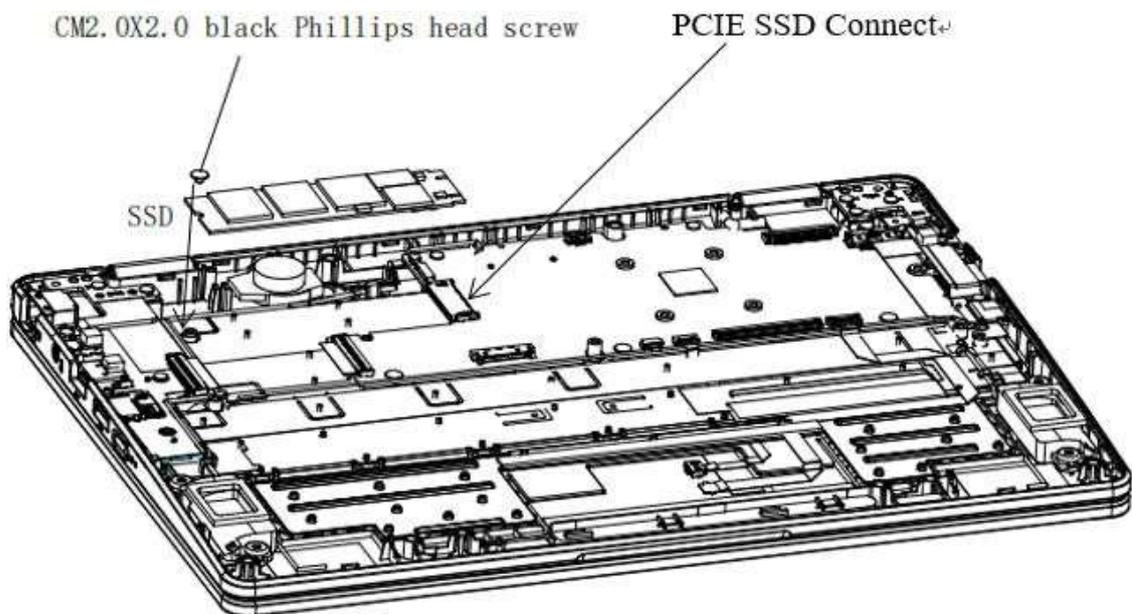


Figure 4-3 Removing SSD

Install SSD(only SSD model)

Install SSD according to the following procedures and Figures 4-3.

1. Insert the SSD into the system board (PCIE SSD)
2. Check if the SSD is pressed onto the cable
3. Secure it with one CM2.0X2.0Xφ5.0X0.5 black Phillips head scr

4.5 Rotating Shaft & LCD Module

Removing Rotating Shaft & LCD Module

Remove Rotating Shaft & LCD Module according to the following procedures and Figures 4-4.

1. Tear off the LCD interface adhesive
2. Remove the six black screws of the left and right shafts
CM2.0X5.5X ϕ 4.0X0.5.
3. Remove the one silver screws of the right shafts, CM2.0X4.0X ϕ 4.0X0.5.
4. Remove the LCD interface(CON3)
5. Remove LCD module

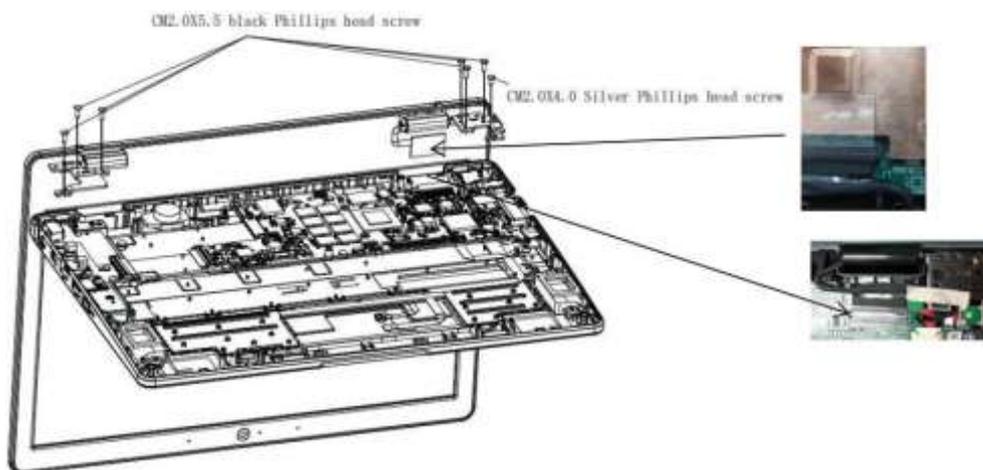


Figure 4-4 Removing Rotating Shaft & LCD Module

Install Rotating Shaft & LCD Module

Install Rotating Shaft & LCD Module according to the following procedures and Figures 4-4.

1. Turn the shaft bracket to the correct fixed position
2. Install the six black screws of the left and right shafts CM2.0X5.5X ϕ 4.0X0.5
3. Install the one silver screw of the right shafts, CM2.0X4.0X ϕ 4.0X0.5
4. The liquid crystal cable is inserted in parallel, and the liquid crystal connection fixing glue is attached to heat sink

4.6 Heat sink

Removing Heat sink

Remove heat sink according to the following procedures and Figures 4-5.

1. Remove six black screws CM2.0X2.5X ϕ 4.0X0.5 from the Heat sink
2. Remove the heat sink.

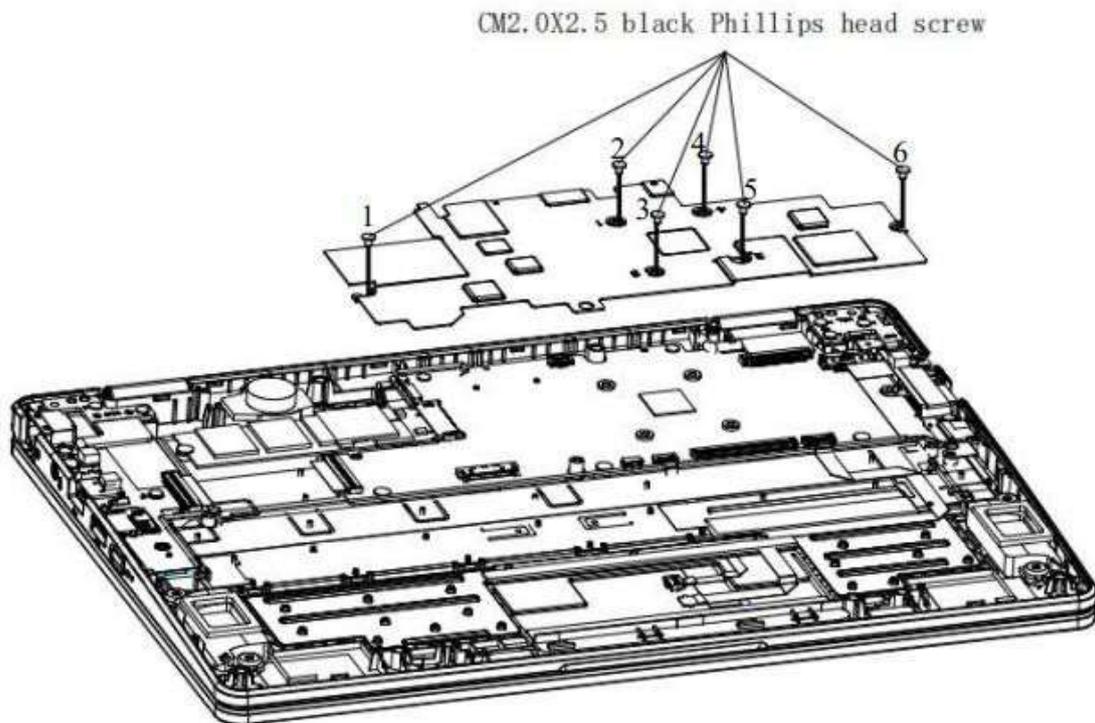


Figure 4-5 Removing Heat sink

Install Heat sink

Install heat sink according to the following procedures and Figures 4-5.

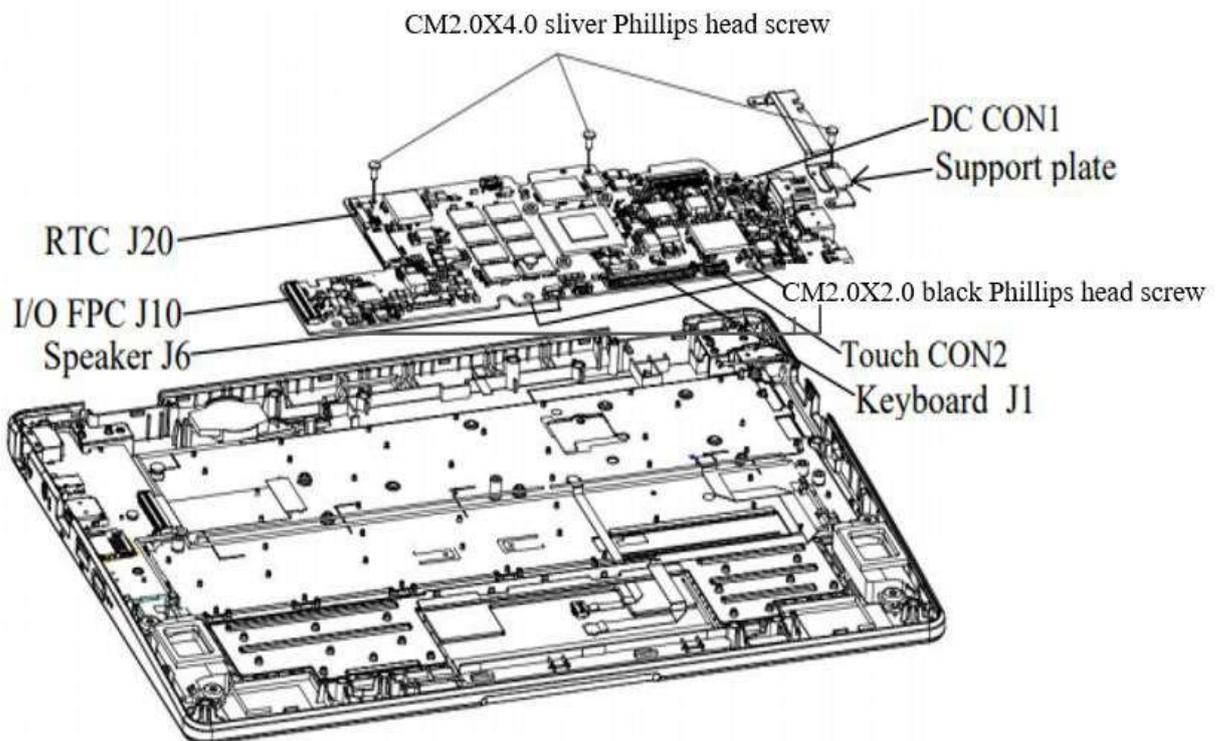
1. Place the Heat sink in the correct fixed position
2. Install six black screws CM2.0X2.5X ϕ 4.0X0.5 to the Heat sink.

4.7 System Board

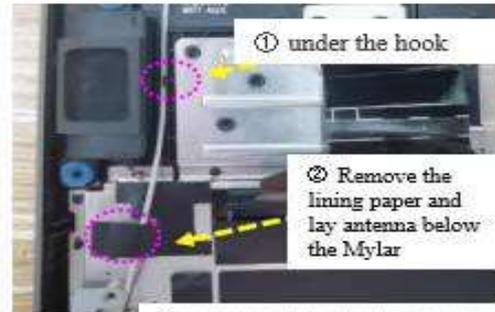
Removing system Board

Remove system Board according to the following procedures and Figures 4-6

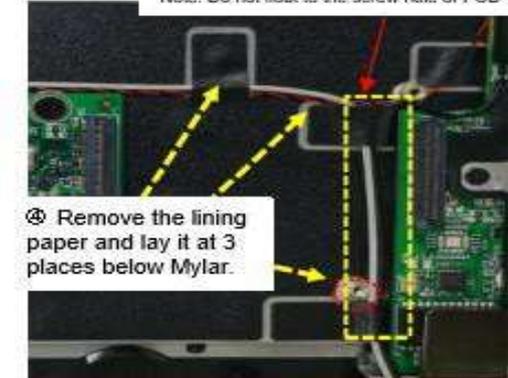
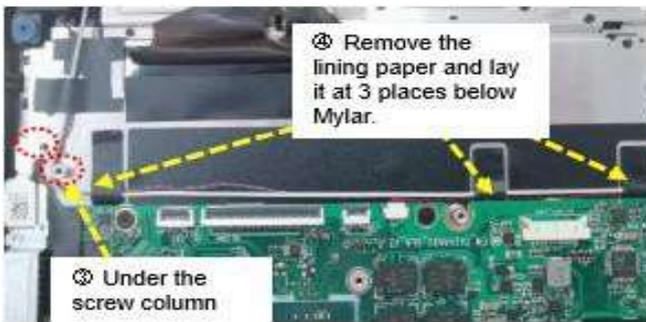
1. Remove the following connection cables
(I/O FPC J10 , Speaker cables J6 , keyboard FPC J1 , Touch Pad FPC CON2 , DC cables CON1 , antenna EU2, RTC J20)
2. Remove three silver screws CM2.0X4.0X ϕ 5.0X0.5 from system board
3. Remove three black screws CM2.0X2.0X ϕ 4.0X0.5 from system board
4. Remove system Board Support plate and system Board from C cover



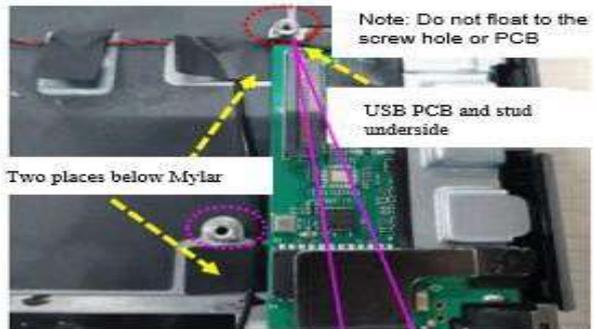
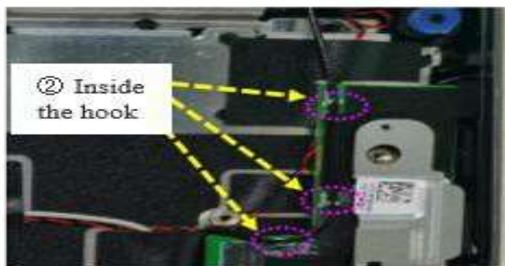
Lay the white antenna



Two antennas in the yellow box area are laid in parallel and overlapping is forbidden
Note: Do not float to the screw hole or PCB



Lay the black antenna



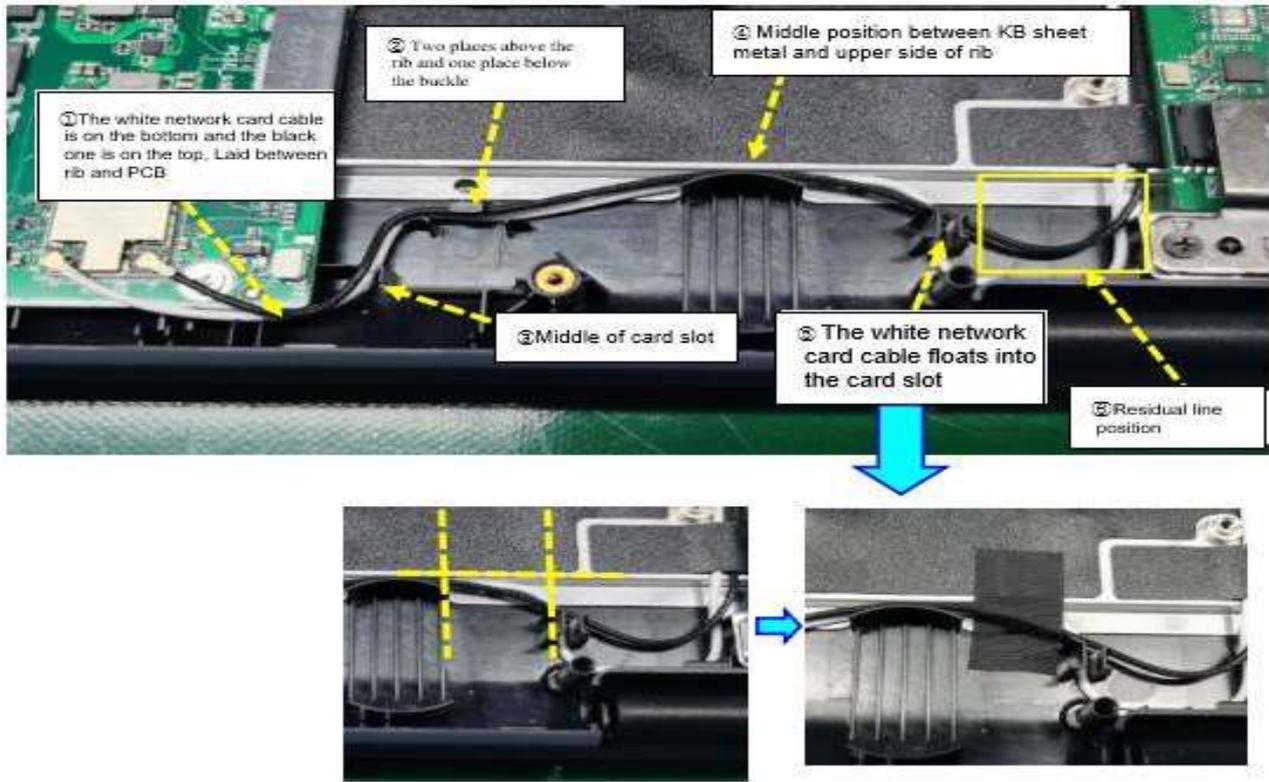


Figure 4-6 Removing System Board

Install system Board

Install system Board according to the following procedures and Figures 4-6

1. Place the system board in the correct fixed position
2. Install three black screws CM2.0X2.0X ϕ 4.0X0.5 to system board.
3. Install three silver screws CM2.0X4.0X ϕ 5.0X0.5 to system board and Support plate
4. Install the following connection cables

(I/O FPC J10 , Speaker cables J6 , keyboard FPC J1 , Touch Pad FPC CON2 , DC cables CON1 , antenna EU2 ,RTC J20)

4.8 I/O Board

Removing I/O Board

Remove I/O Board according to the following procedures and Figures 4-7

1. Remove the I/O FPC from connector.
2. Remove the W-LAN antenna cable from hook
3. Remove one black screw CM2.0X2.5Xφ4.0X0.5 from I/O board
4. Removing the I / O board support
5. Removing the I / O board
6. Remove the I/O FPC

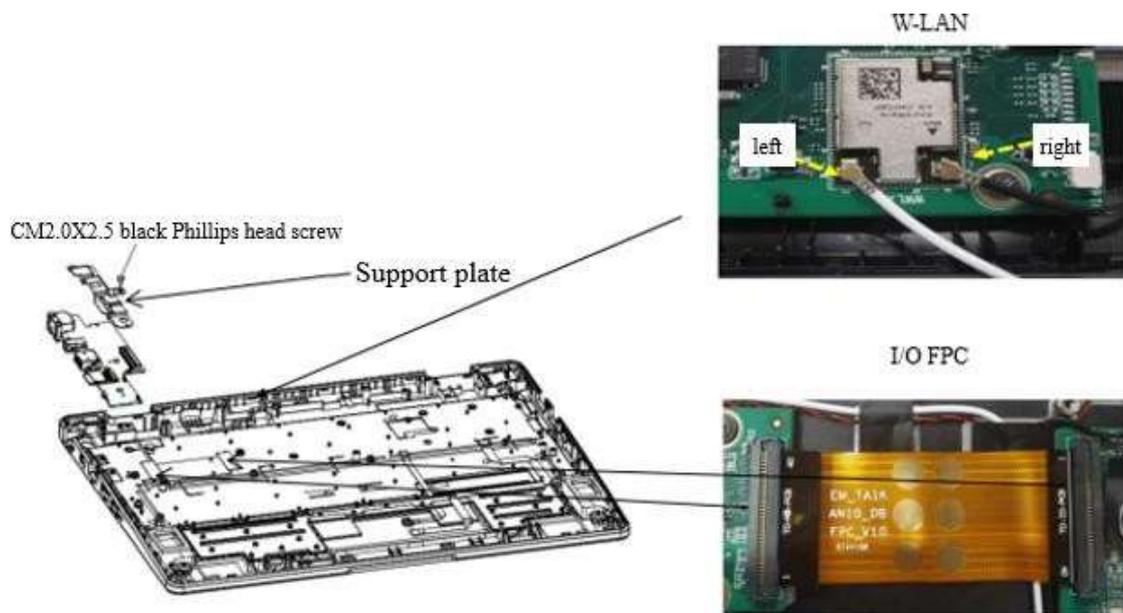


Figure 4-7 Removing I/O Board

Installing I/O Board

Install I/O Board according to the following procedures and Figures 4-7

1. Place the I/O board in the correct fixed position
2. Install the I / O board bracket
3. Install one black screw CM2.0X2.5X ϕ 5.0X0.5 to I / O board
4. Install the W-LAN antenna cable to hook (Connect the W-LAN Cable /Antenna to the W- LAN Cable Connector, the black line connects the right and the white line connects the left)
5. Connect the I/O FPC
6. Paste the I/O FPC

4.9 Speaker

Removing Speaker

Remove Speaker according to the following procedures and Figures 4-8

1. Remove the left Speaker
2. Remove the right Speaker
2. According to order Remove Speaker Connects Cables

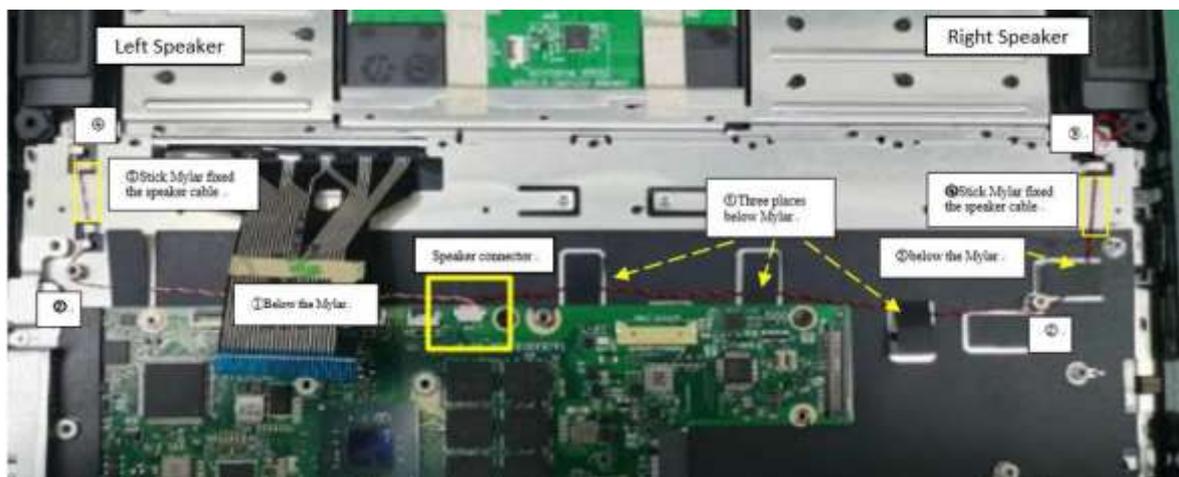


Figure 4-8 Removing Speaker

Install Speaker

Install Speaker according to the following procedures and Figures 4-8

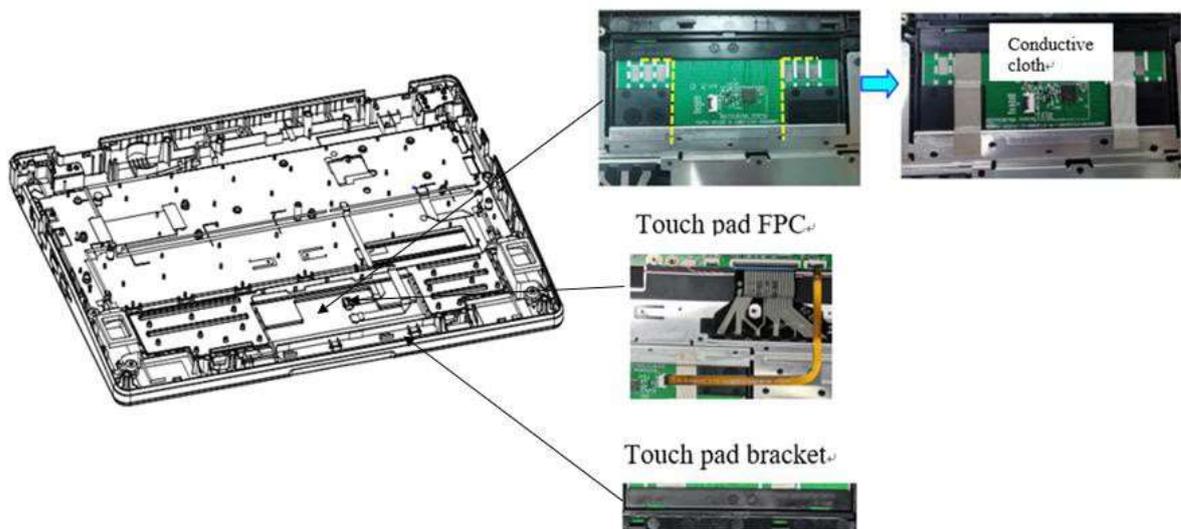
1. Install the left Speaker
2. Install the right Speaker
3. According to order Install speaker cables in order
4. Stick Mylar fixed the speaker cable, Mylar can be reused if it is not damaged.

4.10 Touch pad

Removing Touch pad

Remove Touch pad according to the following procedures and Figures 4-9

1. Remove FPC cable of touch pad
2. Remove the 2PCS touch pad conductive cloth
3. Remove touch pad bracket, If the bracket is deformed, it cannot be reused



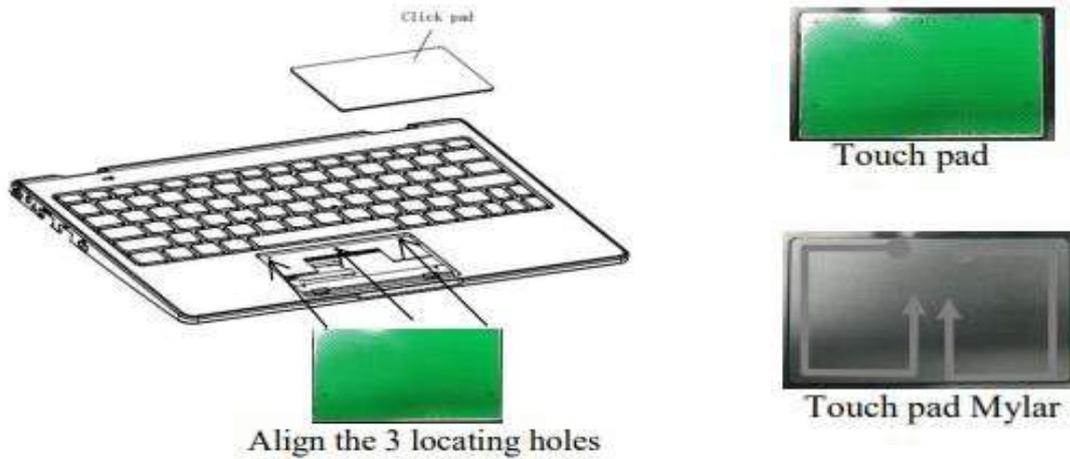


Figure 4-9 Removing Touch Pad

Install Touch pad

Install Touch pad according to the following procedures and Figures

- 4-9 1. Remove the double-sided paper on the back of the touch pad
2. Align the 3 locating holes
3. Place Touch pad in correct position (Keep the interval consistent)
4. Installing the touch pad Mylar (Keep the interval consistent)
5. Install Touch pad bracket
6. Install 2pcs touch pad conductive cloth
- 7.

Parallel insertion touch pad FPC

4.11 RTC Battery& DC-IN

Removing RTC Battery& DC-IN

Remove RTC Battery & DC-IN according to the following procedures and Figures 4-10

1. Remove the RTC battery interface(J20)
2. Remove the RTC Battery from C cover
3. Remove DC-IN cable
4. Remove DC-IN

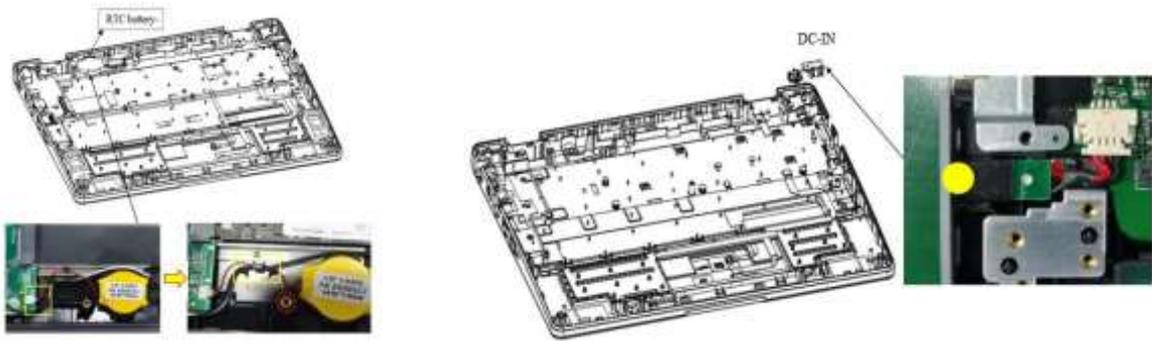


Figure 4-10 Removing RTC Battery

Installing RTC Battery& DC-IN

Install RTC Battery & DC-IN according to the following procedures and Figures 4-10

1. Installing the RTC Battery to C cover
2. Connect the RTC interface, Align the pin downward with the PCB interface(J20) connection
3. Connect DC-IN to PCB, Connect the power interface pin upward and align the PCB interface for parallel connection.
4. Press the marked position in the figure to clip DC in into cover
5. Lay the power cord according to the figure

4.12 LCD Panel

Removing LCD Panel

Remove LCD Panel according to the following procedures and Figures 4-11

1. Start at the edges Remove the B cover
2. Remove the LCD Panel fixed two places easy pull adhesive
3. Remove LCD
4. Remove the insulating sheet of LCD harness interface, disconnect the interface
5. Remove the cable between LCD and Camera cable
6. Tear off the two pieces Mylar on the Screw of hinge
7. Remove the left and right two black screws CM2.0X2.0X ϕ 4.0X0.5 in the upper corner of the LCD panel
8. Remove the six black shaft screws CM2.0X5.5X ϕ 4.0X0.5 of the hinge
9. Remove the shaft support
10. Rip the aluminum tape off the camera, aluminum tape is from the A COVER. It can be reused
11. Remove Camera FPC
12. Remove Camera

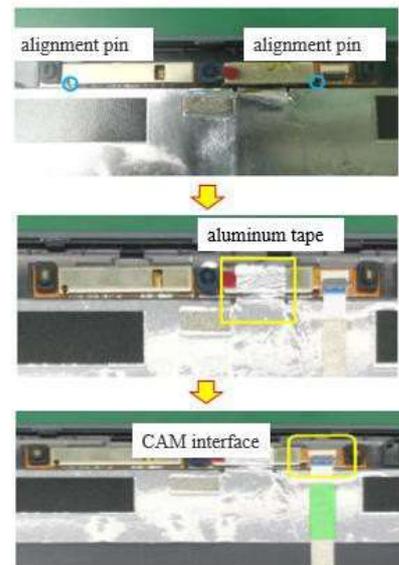
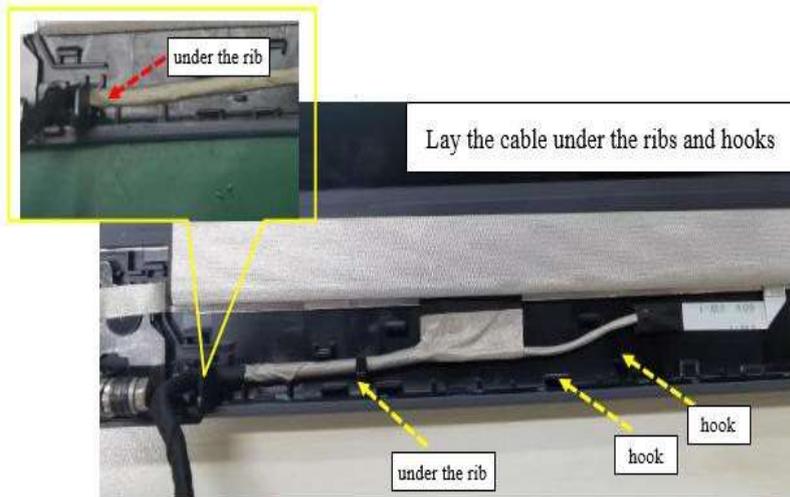
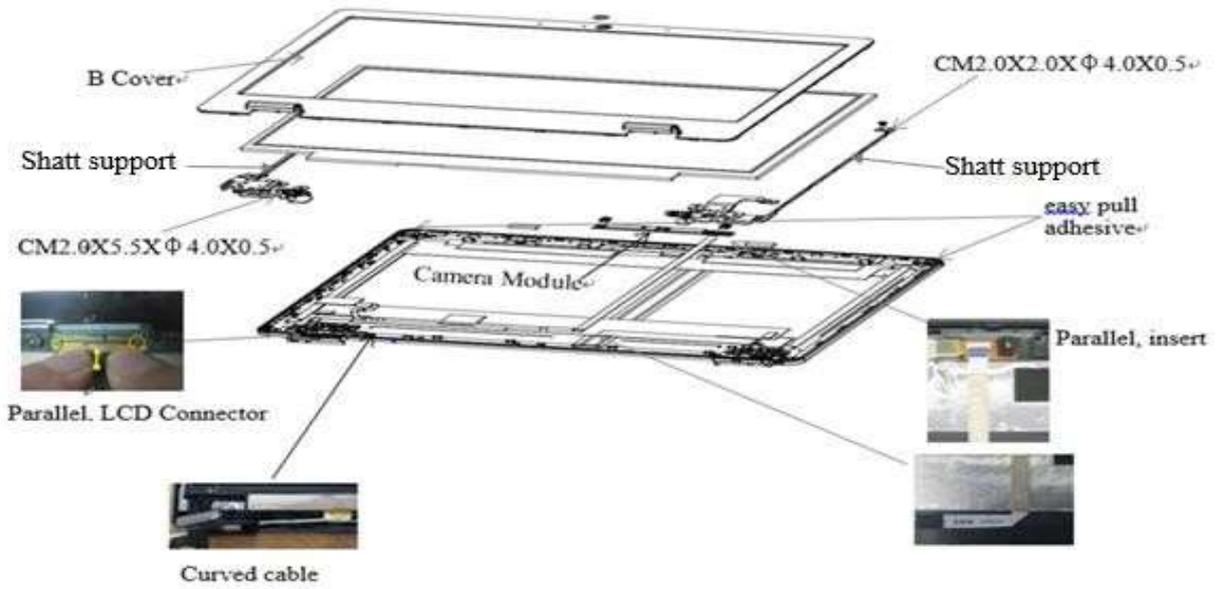


Figure 4-11 Removing LCD Panel

Installing LCD Panel

Install LCD Panel according to the following procedures and Figures 4-11

1. Install the easy pull adhesive to both sides of the A Cover
2. Install Camera Module Align the locating pin and paste it onto the A cover
3. Attach the aluminum tape from the A COVER to the camera
4. Connect Camera FPC
5. Align the locating pin of A cover and install hinge L / R onto A cover
6. Install the six black screws CM2.0X5.5Xφ4.0X0.5 on the hinge
7. Install two black screws to fix the LCD panel CM2.0X2.0Xφ4.0X0.5
8. Attach two pieces Mylar on the Screw of hinge
9. Connect the LCD harness connector
10. Fix the LCD panel and Pay attention to adjust the LCD and cable, Lay harness
above the rib and below the hook
11. Attach a piece of black tape to the LCD cable
12. Install the B cover

AC Adapter, External cables provided with the AC adapter and USB cables

The AC adapter as well as all external cables provided with the notebook including the AC adapter cables and USB cables should be segregated and sent for shredding.

The following components contained within the AC adapter potentially contain hazardous substances and require special handling:

- Printed Circuit Board >10 cm²
- Capacitor >25 mm in height

Photos of the AC adapter and the components noted above are included below.
The notebook has one of two types of AC adapter.

USB connection type



AC adapter



AC Adapter with casing removed



AC Adapter printed circuit board

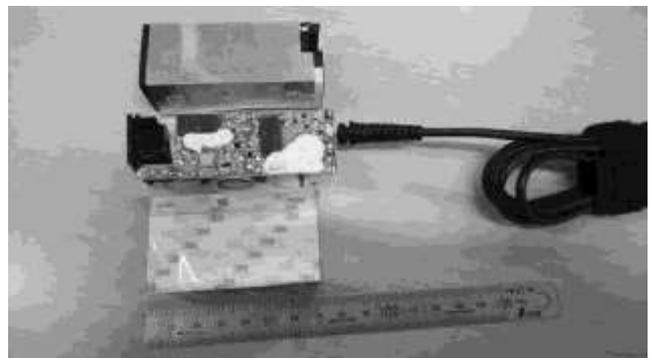


AC adapter capacitor

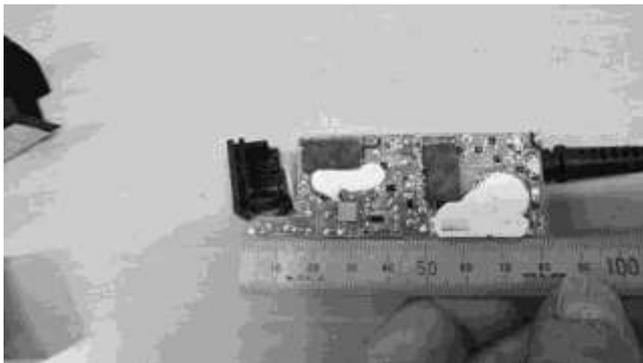
Conventional type



AC adapter



AC Adapter with casing removed



AC adapter printed circuit board



AC adapter capacitor